What is claimed is:

1. A flexible multilayer packaging material for protecting articles that are sensitive to moisture and oxidizing agents, comprising:

at least one active polymeric barrier layer that binds moisture and oxidizing agents; and

at least one ceramic barrier layer.

2. The packaging material according to claim 1, wherein:

the active polymeric barrier layer chemically binds the moisture and oxidizing agents.

3. The packaging material according to claim 1, wherein:

the active polymeric barrier layer includes one or more materials from the group consisting of a polymeric matrix with dispersed cyclodextrines, cyclic olefin copolymers and a polymeric matrix with anhydrides.

4. The packaging material according to claim 3, wherein:

the ceramic barrier layer includes a material from the group consisting of metal nitrides, metal oxides, metal oxynitrides and combinations thereof.

5. The packaging material according to claim 4, wherein:

the at least one active polymeric barrier layer and the at least one ceramic barrier layer are transparent.

6. The packaging material according to claim 1, wherein:

the ceramic barrier layer includes one or more materials from the group consisting of metal nitrides, metal oxides and metal oxynitrides.

7. The packaging material according to claim 6, wherein:
the metal is aluminum.

8. The packaging material of claim 1, wherein:
the ceramic barrier layer includes one or more materials from the group consisting of silicon nitride, silicon oxide and silicon oxynitride.

9. The packaging material according to claim 1, wherein:
the at least one active polymeric barrier layer and the at least one ceramic barrier layer are transparent.

10. A containment for protecting articles, comprising:
a packaging material including:
a first active polymeric barrier layer that binds moisture and oxidizing agents; and
a first ceramic barrier layer.

11. The containment according to claim 10, further comprising:
a second ceramic barrier layer and a second active polymeric barrier layer, wherein the first active polymeric barrier layer contacts the first ceramic barrier layer, the second active polymeric barrier layer contacts the first ceramic barrier layer and the second ceramic barrier layer contacts the second active polymeric barrier layer.

12. The containment according to claim 11, wherein:
the containment has a first surface and a second surface, wherein the first surface is closer to an organic functional stack than the second surface and the second surface consists of a ceramic barrier layer.

13. An organic electronic device that has components that are sensitive to moisture or oxidizing agents, comprising:

a flexible substrate;

a functional area on the substrate, comprising active organic elements;

a cap encapsulating the functional area; and

a flexible multilayer packaging material comprising a ceramic barrier layer and a polymer layer of one or more materials selected from the group consisting of a polymeric matrix with dispersed cyclodextrines, cyclic olefin copolymers, a polymeric matrix with anhydrides;

wherein the flexible multilayer material protects the functional area.

14. The organic electronic device according to claim 13, wherein:

the flexible multilayer packaging material is arranged between the functional area and the flexible substrate.

15. The organic electronic device according to claim 13, wherein:

the functional area includes a stack comprising a first electrically conductive layer, an organic functional layer on the first conductive layer and a second electrically conductive layer on the organic functional layer; and

the functional area comprises at least one organic electroluminescent layer.

16. The organic electronic device according to claim 13, wherein:

the functional area includes a stack consisting of a first electrically conductive layer, an organic functional layer on the first conductive layer and a second electrically conductive layer on the organic functional layer; and

the functional area comprises at least one organic radiation detecting layer forming an organic radiation sensor.

17. An organic electronic device that has components that are sensitive to moisture or oxidizing agents, comprising:

a flexible substrate;

a functional area on the substrate, comprising active organic elements;

a cap encapsulating the organic functional area; and

a first flexible multilayer packaging material having a first active polymeric barrier layer that binds moisture and oxidizing agents and a ceramic barrier layer;

wherein the first flexible multilayer packaging material protects the functional area.

18. The organic electronic device according to claim 17, wherein:

the first flexible multilayer packaging material is arranged between the functional area and the flexible substrate.

19. The organic electronic device according to claim 17, wherein the cap comprises the first flexible multilayer packaging material.

20. The organic electronic device according to claim 17, wherein the cap comprises a second flexible multilayer packaging material comprising:

at least one ceramic barrier layer; and

at least one active polymeric barrier layer that binds the moisture and oxidizing agents;

wherein the at least one active polymeric barrier layer of the second flexible multilayer packaging material includes one or more materials from the group consisting of a polymeric matrix with dispersed cyclodextrines, a cyclic olefin copolymer and a polymeric matrix with anhydrides.

21. The organic electronic device according to claim 17, wherein:

the cap includes one or more materials from the group consisting of polymers, metals and glass.

22. The organic electronic device according to claim 17, wherein:

the flexible substrate comprises a polymer.

23. The organic electronic device according to claim 22, wherein:

the cap comprises a second flexible multilayer packaging material comprising:

at least one active polymeric barrier layer that binds the moisture and oxidizing agents; and

at least one ceramic barrier layer.

24. The organic electronic device according to claim 22, wherein:

the cap comprises a second flexible multilayer packaging material comprising:

at least one active polymeric barrier layer that binds the moisture and oxidizing agents; and

at least one ceramic barrier layer;

wherein the at least one active polymeric barrier layer includes one or more materials from the group consisting of a polymeric matrix with dispersed cyclodextrines, a cyclic olefin copolymer and a polymeric matrix with anhydrides.

25. The organic electronic device according to claim 22, wherein:

the flexible substrate includes a second active polymeric barrier layer.

26. The organic electronic device according to claim 17, wherein:

the flexible substrate comprises an assembly of active polymeric barrier layers and ceramic barrier layers.

27. The organic electronic device according to claim 26, wherein:

the substrate has a first surface and a second surface, the first surface is closer to the functional area than the second surface and the second surface comprises a ceramic barrier layer.

28. The organic electronic device according to claim 17, wherein:

the functional area comprises a stack having a first electrically conductive layer, an organic functional layer on the first conductive layer and a second electrically conductive layer on the organic functional layer; and

the organic functional layer comprises at least one organic electroluminescent layer.

29. The organic electronic device according to claim 17, wherein:

the functional area includes a stack comprising a first electrically conductive layer, an organic functional layer on the first conductive layer and a second electrically conductive layer on the organic functional layer; and

the functional area comprises at least one organic radiation detecting layer forming an organic radiation sensor.